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Thinking lifecycle as an implementation of machine understanding in software maintenance automation domain

Toschev A., Talanov M.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© Springer International Publishing Switzerland 2015. The main goal of our work is to test the feasibility study of automation of incident processing in Infrastructure as Service domain to optimize the operational costs of management services that are delivered remotely. This paper also describes a framework that authors have developed to deliver an integrated incident, problem solution and resolution approach as an event-driven Automated Incident Solving System, for Remote Infrastructure Management (RIM) Model. Current approaches are mainly automated scripts, but this is a specific approach for one specific problem. Those systems can't think. Our approach is a system that exploits a thinking model thus can think and can learn. In other words system is capable of recombining its knowledge to solve new problems. Based on Minsky [11] thinking model we have created a machine understanding prototype which is capable of learning and understanding primitive incident description texts.

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Keywords

Artificial intelligence, Automation, Intelligent agents, Knowledge base, Machine understanding, NLP, Reasoning, Remote infrastructure management